Remarks/Arguments

Reconsideration of this Application is requested.

In order to comply with the May 14, 2009 notice of Non-Compliant Amendment Applicant amended Claim 15 by deleting a comma (,) after the word Printer in the third line of step C) of Claim 15.

Claims 1-17 and 19-25 have been objected to by the Examiner because of some inumenerated informalities. Claims 1-17 and 19-25 have been amended to overcome the Examiner's objections.

Claims 3-5 have been rejected by the Examiner under 35 USC § 112.

Claims 3-5 have been amended to overcome the Examiners rejection.

Claims 1-4, 6-8,10-12, and 14-25 have been rejected by the Examiner under 35 U.S.C. 103(a) as being unpatentable over Whitehouse, U.S. Patent No. 6,005,945, in view of Ryan, Jr. et al., U.S. Patent No. 5,871,288, in further view of Pintsov et al., U.S. Patent No. 6,385,504 B1, in further view of Van Haagen et al., U.S. Patent No. 5,675,137.

Whitehouse discloses the following in line 46-65 of col. 6,

> Each end user computer typically includes a data processor and a communication procedure for sending postage requests to a secure central computer at which a user account has been established, and for receiving a corresponding digital postage indicium. A postage indicium printing procedure prints a postage indicium in accordance with the received digital postage indicium. Each postage request will typically include a user account identifier that identifies a previously established user account, a source address identifier indicating where a mail piece is to be mailed from, a destination address identifier indicating where the mail piece is to be mailed to, authentication information for authenticating that the postage request is from an end user associated with the specified user account identifier, and data concerning the package size and/or weight sufficient to determine an amount of postage required for the mail piece. Each digital postal indicia will typically include data representing the user account identifier, source address identifier, and destination address identifier in a corresponding on of the postage requests.

Whitehouse discloses the following in line 66 of col. 14 – line 17 of col. 15.

> For instance, the postage indicium generated by the present invention is only valid for a mail piece with a given meter and serial number, for delivery from a particular ZIP+4 source location to a particular ZIP+4 destination location, and for a particular mail piece weight and a particular type of delivery service and for mailing on a particular date. Therefore, any attempt to use a stolen or intercepted postage indicium for delivery from or to a different ZIP+4 destination than those associated with the postage indicium would be immediately detected at the processing postal office. Also, even if the interceptor meets the ZIP+4 source and destination requirements, the use of two or more postage indiciums having the same meter number, and serial number will be quickly detected at the processing postal office. Delayed use of the intercepted postage indicium will be blocked by requirements that each postage indicium be used in a timely manner (e.g., within 3 days, or possibly a week of issuance of the postage indicium).

Whitehouse discloses the following in line 30-35 of col. 22.

> The mail piece's destination is validating by comparing the destination indication in the postal indicium (e.g., a ZIP+4+2 indication for origins in the United States) with the destination printed on the mail piece (305). If the two do not match, this is a indication of likely fraudulent use of a postal indicium and is treated as such.

Whitehouse discloses the validation of a postal indicuim by comparing the destination indicated in the postal indicium (zip codes) with the destination printed on the mail piece.

Ryan discloses the following in lines 20-30 of col. 2.

> In accordance with the present invention a user is given control to increase and decrease a 2-D Bar code module size for an IBIP indicium. It has been found that this may allow the use of recycled paper (or other porous paper) envelopes with liquid ink jet printing. The user alters the module size (and thus the indicium size) which provides low resolution printing. Such user control is from the front panel for a mailing machine, or through the PC interface, such as the keyboard and display, for a PC meter. The present invention further includes the USPS providing feedback to the Vendor based upon print quality of verified indicia.

Ryan discloses the following in lines 46-56 of col. 2.

The present invention provides a method for improving print quality for a 2-D bar code. The method includes determining printer type, including print resolution, for printer that will print 2-D bar code and entering paper type for the envelope. A suggested 2-D bar code module size is calculated based on the paper and the printer type. A test sample 2-D bar code is printed at the suggested 2-D bar code module size. The printed test sample is scanned and then evaluated for print quality and readability. The method can also suggest a 2-D bar code module size to the user.

Ryan discloses the following in lines 1-31 of col. 4.

Referring now to FIG. 3, an alternate embodiment is described. At step 305, printer information, i.e., printer name and resolution, is obtained from the PC operating system printer driver. At step 310, the user displays a list of known paper types on the PC. At step 315, the user enters the paper type into the PC. A software module in the PC, at step 220, calculates suggested module size based on the paper and printer information, and, at step 325, displays on the PC a list of module sizes and highlights the suggested one. At step 330, a test print message, preferably a 2-D bar code, is printed, and then scanned at step 335. At step 340, the scanned bar code is evaluated for overall print quality. If the print quality is not acceptable, the print evaluation software, at step 350, calculates new suggestions and steps 325 through 340 are repeated. If the print quality is acceptable, the resolution of the module size is set, at step 360, and the printer is ready to print indicia at step 365.

It will be understood that steps 335 through 350 can be performed by the vendor when the user sends the test print message to the vendor. It is further noted that the forgoing process should be repeated periodically to maintain a high print quality.

In accordance with the present invention, one user printing on a high paper quality envelope with a laser printer may receive a recommendation to use a module size of 0.01".times.0.03". Another user printing on a medium paper quality envelope with an ink jet printer (a marginal combination), may receive a recommendation to use a bar code module size of 0.015".times.0.045" module size. The following are sample calculations demonstrating how the change is module size is determined.

Ryan discloses a method for improving the print quality of a 2-D bar code.

Pintsov discloses the following in lines 51 of col. 9 to line 5 of col. 10.

> Digital signatures (which include cryptographic hashing) can be provided for files communicated between the carrier service data center and mailer's computer. However, one cannot completely exclude the possibility that the mailpiece unique identifier and its associated address can fall out of synchronization, i.e. mailpiece identifiers would be printed on a mailpiece with the address different than was intended by the mailer. The present system overcomes this difficulty by including, if desired, the number of characters in the destination address into mailpiece ID (except blanks and punctuation signs). Mail generating and processing equipment are able to determine a total number of characters in the address and compare it with the number of characters indicated in the mailpiece identifier thus providing assurance that the synchronization is in order. Other mechanisms to assure synchronization between Mailpiece identifier and the destination address are possible as well. One example would be to count the number of lines in the address or using the first alpha numeric on each line of the destination address. For added assurance, OCR can be used to confirm that the printed address matches the address for which authorization has been granted.

Pintsov discloses including the desired number of characters in the destination into a mail piece and comparing it with the number of characters indicated in the mail piece identifier this providing assurance that synchronization order.

Van Haagen discloses the following in line 24 of col.1 through lines 26 of col. 2.

> Deciber or patent applications cited above of two of the applicants herein, Leonard Storch and Ernst van Haagen, is a new and improved bar code structure called binary coded binary, BCB. BCB cannot realize its performance potential when decoded by common present day bar code decoding processes, methods and devices such as the type of reference decode algorithm systems published and described in AIM's (AIM Incorporated is an industry trade association based in Pittsburgh, Pa., Automatic Identification Manufacturers) Uniform Symbology Specifications (USS), © 1993 (copies filed herewith) and elsewhere. What has now been invented by the applicants are new bar code decode processes, methods and devices that incorporate, for example, a moving average, and begin to realize BCB's decode performance potential, including, for example: improved ability to handle extreme levels of ink spread and ink shrink distortion, the limit

becomes the point where the sensing apparatus cannot resolve narrow bar code elements; and, improved ability to handle apparent and actual random edge dislocation distortion (systematic, every edge affected), referred to by applicants as edge noise; as well as improved ability to handle apparent and actual occasional greater-amplitude random edge dislocation distortion (non-systematic, occasional edges affected), referred to by applicants as edge spikes. As it turns out, applicants' new bar code decode processes, methods and devices invented and disclosed in this present application for BCB, can also be used to decode other linear bar codes, including, by way of example, UPC, Code 128 and Code 93; UPC, Code 128 and Code 93 symbols can be decoded exactly as they are now printed. Codabar, Code 39 and Interleaved 2-of-5 can also be decoded by applicants' new decoder if they are printed using whole multiples of modules and no fractional ratios for narrow and wide elements, for example, ratios of 2:1 exactly or 3:1 exactly can be made to work with applicants' new decoder. (A module is defined by AIM as: "The narrowest nominal width unit of measure in a symbol. One or more modules are used to construct an element.") Codabar and Code 39 are discrete (not continuous) and therefore have intercharacter gaps; the intercharacter gaps must also be printed using whole multiples of modules if applicants' new decoder is to decode them with maximum accuracy.

One benefit using applicants' new decoder inventions for UPC, for example, is that the well-known 1-7 and 2-8 UPC character substitution problems can be avoided altogether (this has been a much sought after holy grail for serious bar code enthusiasts). Applicants' present inventions may be used for these and other popular (linear) bar codes, as well as for various two dimensional (2D) bar codes, such as Code 16K, Code 49, PDF 417 and others, in order to increase reading system accuracy and output productivity when high levels of ink spread, edge noise and other distortions are present. (Bar code elements in a linear bar code are disposed along one line, and in a 2D bar code the elements are disposed along two or more lines.)

Applicants also disclose novel means to precisely distort pristine bar code symbol timing count data, and means to simulate bar code decoding on computer apparatus. This, for the first time, allows controlled meaningful comparisons between different decoding processes and methods as well as between different bar code symbologies. The bar code industry was estimated in 1992 to be over $5 billion, and growing toward $20 billion by the turn of the century, yet, as of this patent filing, mean time between bar code failure data and related data is nonexistent, and worse, empirical data gleaned from various elaborate bar code reading tests conducted during the last decade is misleading. Applicants' distortion and simulation apparatus, processes and methods will allow such valuable data to become an integral part of this booming new automatic identification industry.

Van Haagen discloses a generic bar code with error correction for ink spread and ink shrink dissortation.

Whitehouse, Ryan, Pintsov and Van Haagen taken separately or together do not disclose or anticipate step C of claim 1 and those claims dependent thereon. Namely, c) determining estimates of robustness, with respect to said block of printed material, for each of said algorithms in said set to determine which of said characterizing algorithms is most robust; in order to produce descriptors that match sufficiently when said block of printer material is valid and do not match when said block of printed material is invalid; and those claims dependent thereon.

Claims 5, 9, and 13 have been rejected by the Examiner under 35 U.S.C. 103(a) as being unpatentable over Whitehouse in view of Ryan, Jr. et al. in further view of Pintsov et al. in further view of Van Haagen et al. in further view of Ulvr et al., U.S. Patent No. 5,602,382.

Ulvr discloses the following in the abstract.

> A bar code for mail pieces uses bars each of which has four possible states. Two different bars indicate the start of the code and the same two bars in the same order indicate the end of the code. A data content identifier follows the start bars and this indicates the structure and length of the following data field so that when the code is read it will be recognized and read properly. The use of the data content identifier allows the code to be used for different customer and Post Office applied applications in which the code structure, length and content varies. The data field may contain a postal code with or without an address locator, a machine ID, customer information and service information. The code may include a country code field for mail pieces that are being mailed to a different country. The code may also include a field indicating whether the codeword is complete or whether it has to be concatenated with a preceding or subsequent codeword. Error protection in all cases is provided by a Reed-Solomon parity field following the data field. For customer applied codes this parity field may be made shorter than for Post Office applied codes because the potential for error in printing the code by the customer is less in view of the fact that he has more control over the paper quality, colour, extraneous markings, etc.

Ulvr discloses a bar code that contains different information in different fields.

The art cited by the Examiner does not disclose or anticipate an unknown that contains information about an algorithm that is used to determine which characterizing algorithm is most robust in order to produce descriptors that match sufficiently when the block of printed material is valid and do not match when the block of printed material is involved.

In view of the above claims 1-17 as amended are patentable. If the Examiner has any questions would the Examiner please call the undersigned at the telephone number noted below.

Please charge any additional fees that may be required or credit any overpayment to Deposit Account Number 16-1885.

Respectfully submitted,

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